

WHAT IS CLAIMED IS:

1. A method of therapeutically treating a disease characterized by an amyloid deposit of A $\beta$  in a patient, comprising:

administering an immunogenic A $\beta$  fragment in a regime effective to induce an immune response comprising antibodies to the A $\beta$  fragment and thereby therapeutically treat the disease in the patient; and

monitoring the patient for the immune response, wherein the monitoring comprises detecting antibodies having A $\beta$  binding specificity.

2. The method of claim 1, wherein the patient is a human.

3. The method of claim 1, wherein the disease is Alzheimer's disease.

4. The method of any one of claims 1-3, wherein the patient is asymptomatic.

5. The method of any one of claims 1-3, wherein the patient is under 50.

6. The method of any one of claims 1-3, wherein the patient has inherited risk factors indicating susceptibility to Alzheimer's disease.

7. The method of any one of claims 1-3, wherein the patient has no known risk factors for Alzheimer's disease.

8. The method of any one of claims 1-3, wherein the dose of the A $\beta$  fragment administered to the patient is greater than 10  $\mu$ g.

9. The method of any one of claims 1-3, wherein the dose of the A $\beta$  fragment administered to the patient is at least 20  $\mu$ g.

10. The method of any one of claims 1-3, wherein the dose of the A $\beta$  fragment administered to the patient is at least 50  $\mu$ g.

11. The method of any one of claims 1-3, wherein the dose of the A $\beta$  fragment administered to the patient is at least 100  $\mu$ g.

12. The method of any one of claims 1-3, wherein the A $\beta$  fragment is administered in aggregated form.

13. The method of any one of claims 1-3, wherein the A $\beta$  fragment is administered orally, subcutaneously, intramuscularly, topically or intravenously.

14. The method of any one of claims 1-3, wherein the A $\beta$  fragment is administered intramuscularly or subcutaneously.

15. The method of claim 1, wherein the A $\beta$  fragment is administered with GM-CSF in the regime.

16. The method of claim 1, further comprising administering an adjuvant, wherein the adjuvant enhances the immune response to the A $\beta$  fragment.

17. The method of claim 16, wherein the adjuvant and the A $\beta$  fragment are administered together as a composition.

18. The method of claim 16, wherein the adjuvant is administered before the A $\beta$  fragment.

19. The method of claim 16, wherein the adjuvant is administered after the A $\beta$  fragment.

20. The method of claim 16, wherein the adjuvant is alum.

21. The method of claim 16, wherein the adjuvant is QS21.

22. The method of claim 16, wherein the adjuvant is M-CSF.

23. The method of claim 16, wherein the dose of the A $\beta$  fragment is greater than 10  $\mu$ g.

24. The method of claim 16, wherein the dose of the A $\beta$  fragment is at least 20  $\mu$ g.

25. The method of claim 16, wherein the dose of the A $\beta$  fragment is at least 50  $\mu$ g.

26. The method of claim 16, wherein the dose of the A $\beta$  fragment is at least 100  $\mu$ g.

27. The method of claim 16, wherein the A $\beta$  fragment is A $\beta$ 1-5.

28. The method of claim 27, wherein A $\beta$ 1-5 consists of the first five N-terminal amino acids of SEQ ID NO:1.

29. The method of claim 16, wherein the A $\beta$  fragment is A $\beta$ 1-6.

30. The method of claim 29, wherein A $\beta$ 1-6 consists of the first six N-terminal amino acids of SEQ ID NO:1.

31. The method of claim 16, wherein the A $\beta$  fragment is A $\beta$ 1-12.

32. The method of claim 31, wherein A $\beta$ 1-12 consists of the first twelve N-terminal amino acids of SEQ ID NO:1.

33. A method of prophylaxis of a disease characterized by an amyloid deposit of A $\beta$  in a patient, comprising:

administering an immunogenic A $\beta$  fragment in a regime effective to induce an immune response comprising antibodies to the A $\beta$  fragment and thereby effect prophylaxis of the disease in the patient; and

monitoring the patient for the immune response, wherein the monitoring comprises detecting antibodies having A $\beta$  binding specificity.

34. The method of claim 33, wherein the patient is a human.
35. The method of claim 33, wherein the disease is Alzheimer's disease.
36. The method of any one of claims 33-35, wherein the patient is asymptomatic.
37. The method of any one of claims 33-35, wherein the patient is under 50.
38. The method of any one of claims 33-35, wherein the patient has inherited risk factors indicating susceptibility to Alzheimer's disease.
39. The method of any one of claims 33-35, wherein the patient has no known risk factors for Alzheimer's disease.
40. The method of any one of claims 33-35, wherein the dose of the A $\beta$  fragment administered to the patient is greater than 10  $\mu$ g.
41. The method of any one of claims 33-35, wherein the dose of the A $\beta$  fragment administered to the patient is at least 20  $\mu$ g.
42. The method of any one of claims 33-35, wherein the dose of the A $\beta$  fragment administered to the patient is at least 50  $\mu$ g.
43. The method of any one of claims 33-35, wherein the dose of the A $\beta$  fragment administered to the patient is at least 100  $\mu$ g.
44. The method of any one of claims 33-35, wherein the A $\beta$  fragment is administered in aggregated form.

45. The method of any one of claims 33-35, wherein the A $\beta$  fragment is administered orally, subcutaneously, intramuscularly, topically or intravenously.

46. The method of any one of claims 33-35, wherein the A $\beta$  fragment is administered intramuscularly or subcutaneously.

47. The method of claim 33, wherein the A $\beta$  fragment is administered with GM-CSF in the regime.

48. The method of any one of claims 33-35, further comprising administering an adjuvant, wherein the adjuvant enhances the immune response to the A $\beta$  fragment.

49. The method of claim 48, wherein the adjuvant and the A $\beta$  fragment are administered together as a composition.

50. The method of claim 48, wherein the adjuvant is administered before the A $\beta$  fragment.

51. The method of claim 48, wherein the adjuvant is administered after the A $\beta$  fragment.

52. The method of claim 48, wherein the adjuvant is alum.

53. The method of claim 48, wherein the adjuvant is QS21.

54. The method of claim 48, wherein the adjuvant is M-CSF.

55. The method of claim 48, wherein the dose of the A $\beta$  fragment is greater than 10  $\mu$ g.

56. The method of claim 48, wherein the dose of the A $\beta$  fragment is at least 20  $\mu$ g.

57. The method of claim 48, wherein the dose of the A $\beta$  fragment is at least 50  $\mu$ g.
58. The method of claim 48, wherein the dose of the A $\beta$  fragment is at least 100  $\mu$ g.
59. The method of claim 48, wherein the A $\beta$  fragment is A $\beta$ 1-5.
60. The method of claim 59, wherein A $\beta$ 1-5 consists of the first five N-terminal amino acids of SEQ ID NO:1.
61. The method of claim 48, wherein the A $\beta$  fragment is A $\beta$ 1-6.
62. The method of claim 61, wherein A $\beta$ 1-6 consists of the first six N-terminal amino acids of SEQ ID NO:1.
63. The method of claim 48, wherein the A $\beta$  fragment is A $\beta$ 1-12.
64. The method of claim 63, wherein A $\beta$ 1-12 consists of the first twelve N-terminal amino acids of SEQ ID NO:1.